

CLAIMS

1. A supercapacitor which comprises two electrodes in which each of the two electrodes is comprised of a current collector and an electrode active material adhered to the current collector, a separator positioned between the two electrodes, an electrolyte and a package, wherein the current collector is a metal thin plate having a conductive metal oxide layer thereon and the electrode active material is adhered on a surface of the conductive metal oxide layer.
2. The supercapacitor as set forth in claim 1, wherein the conductive metal oxide layer is formed of a material selected from the group consisting of zinc oxide and tin oxide.
3. The supercapacitor as set forth in claim 1, wherein the conductive metal oxide layer is formed of zinc oxide.
4. The supercapacitor as set forth in claim 1, wherein the metal thin plate is an aluminum thin plate.
5. The supercapacitor as set forth in claim 1, wherein at least one of the two electrodes is obtained by dipping a metal thin plate into a solution into which a conductive metal oxide is dissolved, drying the obtained metal thin plate with hot wind in order to form a conductive metal oxide layer on the metal thin plate, and coating the metal thin plate having the conductive metal oxide layer thereon with a slurry containing an electrode active material, followed by drying and pressing to form an electrode active material layer on a surface of the conductive metal oxide layer.